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Contagion of Plague.

The Parliamentary Examinations into the Doctrine of Contagion, and the Policy of the Quarantine Laws, have given to this subject a degree of importance which, while considered in a mere medical point of view, it could never have attained; and as the interest and utility of the opinions and facts that have been made known in the course of the Discussions in Europe, must be fully as great in India as in England, we have been induced to give immediate publicity to a very able Paper on the subject, from the last Number of the British Review, XXVI, which has just reached this country.

Quarantine (from the French *quarante*) implies the forty day's probation which ships coming from countries infected with the plague, or any other disease supposed to be highly contagious, are bound by law to perform, before their crews are allowed to disembark, or their cargoes to be landed. Regulations of this kind, with a view to the safety of cities and communities, are of very ancient date amongst the institutions of man. Indeed the necessity of them must have been very early ascertained; for, under the Jewish theocracy, we find frequent allusions made to diseases of contagion: and the seclusion of infected persons, garments, or houses, the strong injunctions to non-intercourse between the clean and the unclean, together with the necessary directions relating to purification, occupy a conspicuous place in the civil code of the Pentateuch. Whether the diseases of contamination, against which these rules were directed, were merely leprosy and other inveterate cutaneous affections; or whether plague, the true plague, as seen at this day, was one of the number, must ever, we apprehend, remain a matter of doubt. There are certainly very strong grounds for the latter supposition, since, at this day, we are acquainted with no other disease, that could have cut off such immense numbers with so great rapidity. (a) But whatever opinion may be adopted on this subject, it must at least be admitted, that the rules themselves are sufficiently pointed and remarkable. (b)

In the more modern times, the first institution of quarantine regulations, of which we have any account, took place A. D. 542, in the reign of the Emperor Justinian; at which time, the great plague began that lasted half a century, and destroyed a great part of mankind, as far as the world was then known. That politic sovereign, whose mind seems to have been fitted for every branch of legislation, digested a number of suitable precautions, and embodied them in an edict. Thus they became part of the fixed law of the Eastern Empire, and continued to be acted upon until its final extinction by the Turks in the year 1453.

The establishment of similar regulations in the West is still more modern. After the expiration of what are called the dark ages, when Europe began to awake from that intellectual trance in which she had so long been buried, Venice, Leghorn, Marseilles, and some other of

(a) "Now they that died in the plague were fourteen thousand and seven hundred, beside them that died about the matter of Korah." (Num. xiv. 49.)

"So the Lord sent a pestilence upon Israel, from the morning even to the time appointed (three days); and there died of the people from Dan even to Beersheba, seventy thousand men." (2 Sam. xxiv. 15.)

Some persons conversant in Biblical criticism maintain that the disease with which the Philistines were smitten (1 Sam. v. 9; vi. 10) was in reality the plague; and that the Hebrew word, rendered in our version "Ene-rods," should have been interpreted "tumors of some secret part." If so, it probably means that swelling of the inguinal glands which is one of the most undisputed tokens of plague. The opinion here advanced derives strong countenance from Josephus, who gave a circumstantial account of this pestilence (as well as of the one mentioned in 2 Sam. xxiv.) in his Work on the Antiquities of the Jews. (See Josephus, vi. 1; vii. 10.) Indeed the matter might be reduced to certainty, were it not for the extreme vagueness with which all ancient writers detail symptoms. We believe Procopius of Constantinople, who flourished in the sixth century, was the first general historian who gave an accurate or recognizable description of the plague: all the others confine themselves to general expressions, from which no precise conclusion can be drawn as to the nature of the disease.

(b) See Lev. xiii. xiv. *puzim*; there we find a detail of what, in fact, are the quarantine laws of the Hebrews.

the southern towns and states, took the lead in that profitable commerce which now began to be established with the eastern shores of the Mediterranean. They monopolized the importation of Asiatic produce; and, for many years, their harbours were the marts of Europe for Oriental merchandise and luxuries. It was soon discovered, however, that this commercial intercourse was the means of introducing plague into these towns, and of infecting, by means of the goods sold, various parts of Europe, both contiguous and remote. Marseilles, in particular, was a very great sufferer in this way, having, previous to 1720, been wasted by plague no less than twenty times. Measures of precaution now began to engage general attention: a regular code of Quarantine Laws was speedily framed, chiefly on the model of Justinian's, but with such additions and amendments as the altered state of society appeared to require. Venice set the example—an example followed by all the principal governments of Europe, and, amongst the rest, by that of Britain. It would be useless to pursue this historic sketch more minutely. It is sufficient to say, that the subject of quarantine has repeatedly called forth the labours of our Legislature, (c) and that the plan now in force was matured and enacted in the 45th year of his present Majesty.

The subject has very recently been brought forward once more, but under an aspect, and with an intent, wholly new. On the 11th of Feb. in the present Session of Parliament, Sir J. Jackson moved, in the House of Commons, that a select committee should be appointed to inquire into the validity of the doctrine that the plague is contagious, and to report thereupon. The Hon. F. Robinson, President of the Board of Trade, concurred in the propriety of this inquiry being instituted, inasmuch as the Quarantine Laws, which are a serious hindrance to commerce, are grounded on the ancient belief in the correctness of that doctrine. He is farther reported to have said, that the subject has, for a length of time, engaged the attention of that department of His Majesty's Government to which he belongs; and that he and his colleagues were strongly inclined to think the old doctrine erroneous: that discoveries had lately been made which at least justified doubts upon the matter; and that, when a committee sat last year for the purpose of inquiring into the epidemic fever of London, facts had been disclosed which still farther increased these doubts of government. In short, the motion was agreed to; and the committee then appointed has been, we believe, diligently pursuing its labours.

The question therefore now at issue is simply—whether the plague is contagious or epidemic? that is to say, whether it spreads from person to person by contact, or at least by such intercourse with the sick as brings us within the sphere of that invisible pestilential vapour, or animal effluvia, that exhales from their bodies? (an intercourse which, in point of fact, is tantamount to contact;) or whether the diffusion of the disease is owing to causes of a general nature—to causes pervading and affecting the atmosphere, and operating simultaneously on many individuals at once? This question is one of very considerable difficulty in medical physics; it is also one whose right decision is of great consequence to the domestic and inter-national policy of this country. We shall, therefore, apply ourselves to its discussion with suitable earnestness and impartiality.

It is to be regretted, that the Right Hon. Gentleman just named when he alluded to those recent discoveries which are said to disprove the contagiousness of plague, did not state by whom such discoveries had been made; and, when he spoke of facts, that had increased the doubts of government, that he did not mention the persons by whom such facts had been brought forward. When medical doctrines become the subject of controversy, so much obviously depends upon the talents and authority of those professional men who support the opposite sides, that the public necessarily require the information in question, as an important element in the formation of their opinion. We believe, however, we can supply the information which his official reserve withheld: for we are well aware, that the principal assertor of the non-existence of contagion in plague is Doctor Charles Maclean: and we also know that, during the spring of 1818, while a committee of the late parliament were investigating the cause of typhus fever in the metropolis, and so-

(c) For the sake of those who may wish to look into the different statutes we subjoin a list of them. 1 Jam. I xxxi. xxvi. Geo. 2. xxvi. xxix. Geo. 2. viii. 23 Geo. 3. xxxiv. 39, 40 Geo. 3. x. 45 Geo. 3.

cieties were forming to effect its suppression, this gentleman, with great industry, and at considerable expence, taught and disseminated doctrines which totally denied contagion as a source of the evil. Perhaps two or three others of the Faculty join with him in opinion; but as he is the only individual who has submitted his singular tenets to the world in an authentic shape, we regard him as the person alluded to, in the House of Commons.

Dr. Maclean assures us, that for a long time past he has held the opinion that the plague is not infectious; but it is evident he must have first adopted that opinion on grounds purely speculative; for, until four years ago, he never saw the disease! Such, it seems, was the tenacity of his belief, that he determined to set out on a pilgrimage to the East, for the purpose of finding if facts supported his hypothesis. He sailed from this country in May, 1815, to prosecute his researches on the plague at Malta and Constantinople. Lord Castlereagh wrote in his favour to Sir R. Liston, our envoy at the Porte; and the English Levant Company afforded him their patronage, and all the facilities in their power. Of his various transactions of this demi-official mission we shall by and bye speak more in detail: in the mean time, we must pause, for the purpose of cautioning our readers not to take it for granted, that the notions of Dr. Maclean on this subject are new. We trust to make it appear, by a very little investigation, that they are merely an exploded heresy revived. In the *Histoire Generale de Provence*, we are informed by M. Papon that, during the great plague of Marseilles in 1720, the physicians sent thither by the French court to investigate its nature, "from an unaccountable prejudice," asserted the disease was not contagious. Indeed a treatise had been published in England, by one of the name of Rose, some time before this, in which he attempts to prove the disease to be owing solely to a pestilential atmosphere.

Besides, about fifty years ago, Dr. Stoll of Vienna, a man in all respects of sufficient judgment, published upon the non-contagion of plague; and in the campaign of Egypt (1802) our countryman, Dr. Whyte, as almost every one knows, threw away his valuable life, by his unhappy rashness in acting upon this mistaken opinion. (d)

But the doctrine is more ancient still: we may trace it, in fact, to the remotest times. In the early ages of the world, while medicine, destitute of principles as a science, was nothing better than a vague, imperfect, and conjectural art; diseases, whenever they prevailed extensively, were attributed to some general deterioration of the atmospheric air, owing to the heat of the sun or other occult causes. There is even very considerable ground for supposing, that the practice of burning the bodies of the dead arose, in the first instance, not from superstition, but from a popular belief that the flame of the funeral pile would at once purify the air, and (by reducing the body to ashes) prevent those putrid exhalations which it was conceived would render that fluid dangerous to be respired. It was also the practice, a practice employed by Hippocrates himself, when any town was visited with a spreading sickness, to kindle fires in the streets, to remedy that aerial impurity which was assumed to be the cause of mortality. (e)

The doctrine is further illustrated by Diodorus Siculus, when he endeavours to account for the famous plague of Athens: (f) and we are inclined to think Homer's description, in the first book of the *Iliad*, of that pestilential disease, which devastated the Grecian camp, and which he imputes to the anger of Apollo, is nothing but a poetical version of the popular opinion of his time, that diseases of this sort originate in ethereal and solar influence.

Such was the doctrine of the ancients, and such is precisely that of Dr. Maclean. He ascribes the plague and other fevers usually reputed highly contagious, to vicissitudes of heat and cold, to a diminution of the "exciting power" of the atmosphere upon the human system, or to what, in other words, he calls a pestilential and epidemic condition of that elastic substance. He is not at all put out of countenance by the antiquated cast of his opinions, but rather glories in their exceeding length of years;—hints that all who differ from him set at naught the wisdom of the ancients, and asserts that his is the good old faith, while contagion is only a modern delusion, invented by Pope Paul the Third, for the purposes of policy and superstition! The latter assertion is so extraordinary that we shall examine it hereafter; meanwhile we cannot help exposing the sophism here conveyed under the mask of tender regard for ancient wisdom.

(d) Dr. Richard Mead in his excellent discourse on "Pestilential Contagion" (London, 1720), alludes to persons who had even before his time maintained the non-contagious doctrine, now brought forward afresh. Thus it is any thing but new.

(e) This expedient was again tried in London during the great plague of 1665. Fires were kept burning in the streets for three days. On the succeeding night no less than 4,000 died, although not more than 1,200 had died for the preceding three or four weeks. It was tried also in the plague of Marseilles in 1720, and in that of Toulon, 1721; but with a result equally pernicious. See Dr. Mead's Discourse on Pestilential Contagion; Dr. Wilson (Pouilly) on Febrile Diseases; and Dr. Bateman on Contagious Fevers.

(f) That which occurred in the Peloponnesian war, and which is so powerfully portrayed by Thucydides in the Second Book of his History.

For our parts, much as we honour the splendid monuments of taste and genius which the ancients have left behind them, we cannot see how we are bound, at this time of day, either on the score of science or decorum, to cherish a respectful deference for their speculations in natural philosophy, which are, for the most part, exceedingly fantastical, and matter rather of curiosity than research. To hold up, therefore, any right, on the part of the ancients, to our perpetual veneration for their opinions, is highly unreasonable: "non enim (as says the eloquent Lactantius) quia nos illi temporibus antecesserunt, sapientia quoque antecesserunt:" (g) in fact when reference is made to the age of the world, it will appear that we are more ancient than they; on the principle that human experience is accumulative, and that we have had an opportunity of profiting by the aggregate knowledge and experience of preceding generations. In the natural and experimental sciences, "Truth (as Lord Bacon (h) has well expressed it) is the daughter of Time, and not of Authority;" and it follows, since medicine is strictly an experimental science, that the theory or treatment of diseases, taught in remote times, can have very little claim to attention in an era like the present, when all the necessary branches of knowledge are better developed, and new light shed upon the path of investigation. Upon the whole, the concurrence of the ancients must go for nothing, and Dr. Maclean's doctrines must be judged on their own unassisted merits. Let us proceed, therefore, to examine how far these merits will stand the test of argument and investigation.

In the first place, we would remark, that were the air we breathe really susceptible of those pestiferous deteriorations which this writer supposes, it would deserve to be denominated not 'the breath of life;' but the last of death. Since similar conditions, as to its weight, temperature, and 'exciting power,' must be continually recurring, we scarcely see how it is possible that the human race could have been continued amidst such an incessant renewal of the seeds of pestilence. If this hypothesis were true, one of two things would follow; either, that the life of man and animals would be an unaccountable phenomenon, next to a miracle, or that the world would become an unpeopled wilderness.

In the second place, the supposition of an extensive atmospheric poison, besides being gratuitous, is at variance with the known properties of that medium. It is surely strange that that which gives life and fragrance to the flower, and ministers to the nourishment of every organized substance, should to man alone carry disease and death. Seeing, also, that the air tends perpetually to an equilibrium and free intermixture, we cannot, consistently with its ascertained laws, imagine such a notorious alteration of its qualities to take place throughout a whole district, as would sensibly affect its standard purity, or permanently diminish its density. In countries even the most liable to plague, the nicest eudiometric experiments have not shown any diminution of the vital element of the atmosphere. On the contrary, this vivifying part, oxygen, exists always in determinate proportion to the other ingredients, and is found to be equally abundant in every country of the globe. (i) In seasons of pestilence as in seasons of health, whether between the tropics or within the polar circle, on the the plains of Damascus, or amidst the trackless snows of Labrador.

In the third place, we cannot admit the possibility of plague being the result of a cause so general as atmospheric vicissitudes, since every thing proves it to be a disease *sui generis*, and attended with a train of symptoms specific and peculiar. We readily grant, that these vicissitudes may, and often do, cause severe rheumatisms, catarrhs, sore-throats, bowel-complaints, pleurisies, and other complaints attended with more or less of fever. But they never excite plague, any more than they ever excite small-pox. These two diseases, in fact, are excitable only by their own morbid poisons; and although climate, diet, fatigue, or anxiety, may facilitate the development of these poisons, they can never supersede, or even simulate, their operation. The plague is uniformly attended with glandular swellings in the groin, arm-pits, &c. of a definite kind: now this fact is unsurmountable; for we contend, it is just as impossible for a cause of an indefinite nature to produce, in every instance, a characteristic disease like this, as it would be for a person throwing dice to throw aces many millions of times in succession, without a single failure. The influence of climate and some other agents, physical and moral, may be said to lay a train; but the train would remain quiescent for ever, were it not for the spark that fires it; and that spark we take to be, in the case of plague, a specific virus.

(g) Lactant. Div. Instit. lib. ii, cap. 8.

(h) Novum Organum, Aphor. 84.

(i) Dr. Maclean, when he advances the hypothesis, that a diminution in the exciting or vital power of the air is the cause of pestilence, is obliged, for the sake of consistency in speculation, to maintain that sea-scurvy, which is generally admitted to arise from the foul confined air of ships, aided by salt meat, is in its nature analogous to plague. This however is a truly gratuitous assumption; for will any one but himself acknowledge the least shadow of resemblance? In this Work, there are many other instances of inconsequential reasoning; but as they relate to subjects purely medical, we omit them.

The only farther argument that has, so far as we know, ever been plausibly urged in support of an epidemic or diseased state of the air is,—that, were plague really contagious, it would spread throughout the world at all seasons, and in all years, without its being possible for any one to escape its ravages. The instances of persons escaping the disease, even after contact, as they lend some apparent countenance to the above proposition, are emphatically dwelt upon by the non-contagionists, and, by a method of computation not unlike Falstaff's, are swelled to a large amount. But we would remark, in the way of rejoinder, that even small-pox, which they themselves allow to be highly contagious, does not now, and did not at first spread rapidly through the world. That disease, although it had existed from all antiquity in China and Hindoostan, and had for ages been committing far greater ravages among the dense population of the East than ever it has done in the West, did not find its way into Europe until early in the eighth century, when it was imported by the Saracen invaders of Spain. Even in modern times it has only prevailed extensively in given years, and at uncertain intervals. The same thing holds true of plague: upon the origin of this prison, as upon that of the human race itself, the greatest obscurity rests. Indeed we are inclined to believe that, like other physical agents of destruction, it must have emanated originally from the fiat of the Author of nature; and is thus probably coeval with the existence of man.^(k) Yet this poison remained unknown in Europe until events brought us in contact with Eastern nations. Moreover, in order to give it activity, some external circumstances, in their own nature quite unconnected with the virus, must accidentally concur. These assisting circumstances are, 1st, a certain temperature and moisture of the air; and 2d, a due susceptibility of the human body. Unless these circumstances are present in a greater or less degree, the contagion, however inveterate, will remain dormant. It is a matter of constant observation, and not to be disbelieved merely because we cannot account for it, that a temperature less than 60° of Fahrenheit, or more than 80°, equally causes the extinction of plagues; hence the disease is unknown both in very cold countries, and within the tropics; although in the latter situation it ought to rage with tenfold violence, were it true that it depends upon a putrescent principle, or an accumulation of noxious vapours in the air.

As to the second circumstance, viz. susceptibility, it varies infinitely in different individuals. Some constitutions will resist infection altogether: others will only resist a first, second, or third exposure, and fall at last; whilst others, and by far the majority, readily suffer from a first and even transitory application of the poison. From all this it follows, that the escapes so often quoted, prove nothing beyond a difference of temperament and susceptibility. From pretty sufficient data it is ascertained, that one twentieth of the human species are not capable of being acted upon by the contagious matter of small-pox. May not the same be true of plague? Indeed, without a certain sort of limit of this kind, the havoc amongst mankind in times of pestilence must have been far greater than it has been.

The above argument takes for granted a certain analogy between plague and small-pox; and we contend, in opposition to the able though anonymous writer of the pamphlet (No. 4.) prefixed to this article, that a sufficient degree of analogy does exist to justify an inference from the one to the other, inasmuch as they possess that general resemblance which all febrile diseases have to one another, and moreover are both attended with characteristic eruptions.

But the doctrine that plague is owing to local or atmospherical causes is disproved by facts as well as by reasonings *à priori*; and in a question purely of observation to matters of fact the appeal must at last be made.

The first and strongest fact against it is, the safety which absolute seclusion always confers. The efficacy of non-intercourse has been demonstrated times without number, wherever the plague has manifested itself. The Franks in Constantinople uniformly escape the malarial even in the worst years, by the simple expedient of avoiding communication, direct or indirect, with suspected persons or goods. Their state of exemption forms a wonderful contrast to the dreadful mortality among the Turks, who, being predestinarians in religion, settle themselves in the dogged conviction of an overwhelming fatalism, and, taking no sort of precautions either as to cleanliness or separation, await the event in torpid resignation.

In the great plague of Moscow in 1771, which destroyed nearly 60,000 persons, Dr. de Mærtens, merely by strict attention to non-intercourse, preserved the Foundling Hospital of that city from the slightest infection. This institution contained a thousand persons, yet not one of them died, although, for many months, thousands were dying in the city around it, (*l*)

(k) Contagium est morbi primo soboles, postea causa;—quia non existit nisi post morbum primo inductum; nam qui primus peste correptus fuit, illam a contagio non contrahit." Diemerbroeck. (De Peste, Cap. 8.)

(l) De Mærtens, words are worthy of attention: "Solo egrorum et rerum infectarum contactu communicabatur; atque atmosphaera contagium non spargebat, sed sanitissima semper fuit." (See Hist. Pest. Moscuens.) Dr. Orren, Physician to the Empress Catherine, agrees in opinion with De Mærtens.

Dr. Russell, who practised for forty years at Aleppo, was in the habit of prescribing daily to crowds of people infected with this disease. He saw them from a chamber-window, and used no kind of precaution beyond avoiding contact with their persons and clothes, or inhalation by the breath of the vapour from their bodies: and he lays it down as the result of his long experience that he never knew an instance of a secluded family becoming infected, without being able to trace the misfortune to some accidental or unavoidable violation of the rules of confinement.

M. Papon, in the History of Provence already referred to, relates that the plague was introduced from Marseilles, in 1720, into the town of Aix. The governor of the latter place put all the inhabitants under quarantine in their houses, and the disease soon disappeared. The restrictions were taken off somewhat prematurely, and the disease broke out anew, but was finally extinguished by a repetition, and more steady prosecution, of the like manner. (*m*) Surely this was equivalent to an *experimentum crucis* on the question of contagion.

We have the strongest evidence to the same effect in "Jackson's account of Morocco." This gentleman, in rather an able description of the dreadful plague which wasted that empire in 1799, and carried off no less than 124,500 souls, shows in the most convincing manner that the disease was strictly contagious. One fact is very decisive; whilst the disease was raging in Mogadore, the small village of Diabet, only two miles to the south-east, remained for thirty-three days uninfected. At last promiscuous intercourse conveyed the poison; and this small place, out of a population of 133, lost, in the short space of twenty-one days, 100 persons by this fell scourge!

If any one thing could prove more forcibly than another that the disease is the product of personal contact, and not of any atmospherical contamination, it is the fact stated by Mr. Jackson, that instead of shutting himself up in his house, like other Europeans, he rode out occasionally for exercise, and exposed himself freely to the air, still, however, avoiding suspicious communications. He had a separation of the width of three feet made across the gallery of his house, between the kitchen and the dining-parlour. From this place of separation he took the dishes with his own hands and, after meals, returned them to the same spot; thus suffering none of his servants to come near him. He adopted similar precautions in his counting-house, to prevent the near approach of persons who might call on business, and made a practice of never receiving money but through vinegar. He himself escaped the plague, although he informs us his cook died of it. What augments the value of Mr. Jackson's testimony is, that not being a medical man, he cannot be suspected of any theoretical bias whatever.

Such facts, which, if necessary, could be multiplied without limit, surely overturn the hypothesis that plague is epidemic, or, in other words a disease of atmospherical influence; for if the cause were some fault inherent in the whole mass of air, or if it were some marshy vapours, or other depravity in the climate and soil of a district, the effect would of necessity be indiscriminate, and the marked exemptions just cited would be incompatible with the nature of things. We have a right, therefore, to call upon our non-contagionists to explain, upon their principles, how it should happen that out of a given population, living in the same localities, breathing the same air, cultivating the same manners and customs, and using nearly the same diet and clothing—(circumstances that tend to superinduce a considerable similitude of constitution, and consequently an almost equal liability to general causes of disease) those only who abstain from touching persons or goods infected with the plague should universally escape the disease, while others, in parallel circumstances, but who neglect the aforesaid prudent regulations, are almost as universally seized with it.

Instead of atmospheric impurity being a cause, we do not believe that it is often even a concomitant of extensive plague. In fact, we are inclined to think the very reverse is sometimes the case; for it has more than once been remarked, that during seasons of pestilence, those diseases that arise evidently from thermometrical vicissitudes and elemental influence are exceedingly rare. From this, might not salubrity rather than a contrary state of the atmosphere be inferred? During the great London plague of 1655 the weather was remarkably fine, and the air to all appearance, uncommonly pure and serene; so much so, that stone-fruit and grapes were very plentiful all over England. Sydenham notices this very favorable weather, and notices also the absence of the usual diseases of the summer; but instead of hitting upon the explanation before his eyes, and considering the latter circumstance as the simple effect of the former, this eminent physician goes on refining until he arrives at the notable hypothesis, that the greater disease (plague) had extinguished all the lesser ones!!

Upon the whole, that pestilence arises from a pestilential condition of the atmosphere is not proved; but even were it true, it is any thing rather than a philosophical explanation; for what else is it but the "*ignotum per ignotius*?"

(m) See also M. Regaud de l'Isle's Memoir on *Malagie*, read before the National Academy of Sciences at Paris.

Having now refuted, we hope satisfactorily, the opposite doctrine, both by arguments and facts, it behoves us to bring forward arguments and facts in confirmation of our own.

We would first remark, that there is no natural presumption against the plague being contagious, but rather quite the contrary; for their are certain diseases which all the world (including Dr. Maclean himself and his supporter, the author of the anonymous pamphlet placed at the head of our article) allow to be contagious, namely, small-pox, measles, scarlet fever, &c.

Besides, we have nearly the same evidence for the existence of a contagious effluvia, as for that of caloric, electricity, magnetism, and other imponderable substances; that is to say, we know them from their effects on ourselves and surrounding objects. We are at present as little acquainted with the ultimate nature of the latter as of the former: but would any one be justified, on account of the imperfection of our knowledge, roundly to deny altogether the existence of these powerful agents?

But to go from reasonings to facts:—there is such a mass of evidence for the contagiousness of plague from all those who have witnessed the disease; and such a weight of authority from those eminent members of the faculty whose opinion is of any consequence in questions of this nature, that to disbelieve the former would be to set at naught the faith of testimony, and to disregard the latter would be the height of presumptuous scepticism. In the last century, Drs. Mead, Hodges, Diemerbroek, Russel, Samoilowitz, Orreans, De Martens; and in the present times, Sir Gilbert Blane, Drs. Bancroft, Armstrong, Bateman, Johnson, Dickson, Stokes, Chisholm, Larrey, Pagnet, Desgenettes—all of them distinguished in the literature of their profession, and highly skilful in the practice of it, may be enumerated as concurring in this opinion, many of them too from intimate and extensive acquaintance with the disease. It should also be remembered that the College of Physicians of London have given their sanction to the doctrine we are contending for. In short, we believe there is a greater unity of opinion on this point among medical men, than upon almost any other relating to the theory of disease.

The officers on the medical staff, both in the British and French army, during the late expedition to Egypt, are all supporters of contagion. Dr. Desgenettes expressly says that "the contagious nature of plague is proved by a thousand examples;" and Dr. Bancroft has collected such a profusion of facts upon the subject as we think no impartial mind can resist.⁽ⁿ⁾

Dr. Pagnet, also, of the French army, among other instances of a like nature, mentions that eight soldiers at Caïpha caught the disease while handling an infected pelisse; five at Gaza from disputing the possession of a comrade's clothes who had died of the malady; and that four were taken ill at Jaffa from wearing some cockcloths which had belonged to an apothecary dead of the disease. "These last four" (he observes) "were seized at the same time with glandular swelling in their necks, and died from the third to the sixth day."^(o) Where could we have more precise evidence of the fatal effects from local application to the pores of the skin of the poison of contagion?

Mr. Jackson in his "Account of Morocco" before quoted, relates (case 8th) an instance of a person being suddenly smitten while looking over some infected Morocco leather. He fell down instantaneously, and died the same day, in spite of the aid of medicine!

The next witness we shall cite in favour of our side of the question, is Dr. Maclean himself! We have already stated that he set out in the summer of 1815, to try if facts supported his pre-conceived opinions. He touched at Malta, and commenced his researches on the origin of the plague which had visited that island so severely in 1813. It appeared from official documents, and from the opinion of all the best informed medical practitioners, military and native, that the disease had been introduced by a vessel from Alexandria, which had left that place while the plague was raging, and had lost two men by it on the voyage. She was put under quarantine in the harbour of La Vellella; but it was ascertained, when too late, that a shoemaker (named Salvator Borg) had found means to purchase a piece of linen that had come from Alexandria; and thus the poison was imported into the crowded and dirty part of the town, where it soon began to spread.

Considering how Dr. Maclean's mind was pre-occupied with notions of non-contagion, our readers will not perhaps be surprised to hear that he rejected this simple evidence altogether, and ascribed the disease to the state of the atmosphere. But we think they will be surprised when they learn how he supports this allegation.

"In March, the light showers that fell in some parts of the island brought down a reddish earth with them; and at Palermo, in Sicily, the weather was heavy, dull, and foggy; and a quantity of muddy earthy substance fell with the rain, but in greater quantity than at Malta." (Maclean's Researches, vol. ii. p. 9.)

(n) Bancroft's Essay on Yellow Fever, chap. iii. §46, on Plague;

(o) Pagnet de la Peste, 229, 230,

For our parts we conceive these phenomena to have been purely meteoric, and are quite at a loss to imagine what they had to do with the matter: but if they had, how did it happen that the plague did not break out at Palermo also; for that place, as it would appear, had its due share of the atmospheric earth and muddy rain!—*Credat qui credere possit!*

The author next proceeded to Constantinople, and through the British Ambassador there, obtained leave from the Turkish government to conduct his researches in the Pest Hospital of the Seven Towers. The patients of that establishment being given up to his care, he entered on his duties on the 15th of August. Had his exertions been directed simply to a better mode of curing the disease, we should have truly venerated him: even as it is, notwithstanding our condemnation of the opinions that led him to hazard the experiment, we are as ready as his warmest friends to honour his civil courage, and to praise the philanthropic zeal and intrepidity with which he comforted himself. Scarcely, however, had he been in the hospital five days, when he was seized with the plague, which gave the *coup de grace* to his researches; for although the attack was a mild one, and he recovered from it, it left him with no other thought than how to get safely out of his disagreeable position. One would have thought that an experiment ending so fatally to his darling hypothesis would have abated the pride of speculation; but this was by no means the case. There are some men on whom experience is thrown away. The Doctor could easily find a loophole; and since "the atmosphere" was not excluded from the Pest-House, it is no more than fair that he should have recourse to this his old and favorite medium of infection to account for the attack which he himself sustained. This he accordingly does, and adds that the spare diet (though to that, we think, he owed his life), the fatigue he underwent in the hospital, and the incessant mental irritation he endured from the constant contumelies and thwartings of the servants of the institution, gave a force to the "epidemic constitution of the air" which his frame could not withstand. This, we honestly think, is a very laborious and round-about explanation of an occurrence, which, at the very first glance, we should with little hesitation have referred to contagion; and it proves how men of a speculative turn will mystify the plainest subjects, and cheerfully go miles out of their road, and that too in a difficult or unknown path, under the vain idea they have fallen upon a near cut to truth!

Dr. Maclean indulges in strong complaints against the economy of this hospital, which he says was so bad as to defeat his best exertions. He even goes so far as to say that when the patient did not die off expeditiously enough by the disease, the superintendent and nurses were "nothing loth" to quicken their exit by poison or other horrible expedients. Now that the discipline of this institution is exceedingly neglected, we are ready to believe: and that the servants may be as nefarious as people of this description usually are, when placed under little control, we also freely admit: but we feel a reluctance to credit the charge of their using foul play towards the patients! Nothing short of direct proof (of which the author has offered none) could make us believe in a crime so revolting to man's nature: for man, though he be Christian, Turk, or Greek, is still *man*. We must observe, too, that Dr. Maclean's testimony labours under a suspicion of vehement prejudice. All the while he was in the hospital, even prior to his falling sick, his imagination seems to have been filled with "treasons, stratagems, and spoils;" for he seriously believed the people about him had formed a design not only against his comfort, but his life! As a proof of this, let the reader take the following anecdotes from vol. ii. p. 129. One evening, it appears, the Greek monk who acted as head of the hospital, meeting our author, embraced him in a fit of drunken jollity, as if eager to conciliate his good will, exclaiming, "What a pity it is that two great men should not be able to understand each other!" but the Doctor says he felt this wily priest fumbling with his right finger and thumb nigh his (Dr. Maclean's) left ear; and immediately suspecting him of a design to introduce something deleterious into it, with all the energy of fear, he pushed him almost headlong down stairs!! (p.)

After the recovery of his health, the author proposed to the Turkish government to commence his researches anew; but he stipulated, as an indispensable condition, that the pest-hospital of which he should have the charge should be equipped by medical assistants and nurses from England, of whom he was to have the choice and sole direction. This was perfectly right, and we do not wonder at his making the stipulation; but as little do we wonder that the Porte declined it, because it would have been attended with considerable expense. Dr. Maclean alleges that the Turkish government do not in earnest wish the suppression of plague (as the Sultan, in certain cases, inherits the goods of those that die of it); and this perhaps may be true; yet we think there was a good deal of force in the reasons they gave for declining his pro-

(p) This reminds us of Hamlet:

"With justice of cursed hebenon in a vial,

He in the porches of mine ear did pour

The leporous distilment, whose effect

Shows such an enmity with blood of man," &c. (Shakespeare.)

posul. They said that the plague of the season (1815) was of a character comparatively benign; that but few were seized with it, and that of these many recovered in the other hospitals as well as that under our author's care, and that, consequently, there was not sufficient evidence of the value either of Dr. Maclean's doctrines or treatment to justify the Porte in appropriating any considerable portion of the public funds to a further prosecution of his investigations.

Besides his own experiment, his work gives us an account of those still more recently performed, at Constantinople, on the same subject, by Doctor Valli, an Italian, and M. Rosenfelt, a German. The former hoped that, by inoculation with a mixture of the matter of plague and cow-pox, he would render the contagion milder, and prevent its recurrence in the same person; and the latter believed he possessed a secret but infallible nostrum for preventing the contagion altogether. The schemes of both these gentlemen failed: poor M. Rosenfelt died of plague; Dr. Valli also caught it, but, like our author, recovered to tell the tale. (g)

After this exposition, our readers will most likely agree with us that Dr. Maclean's researches, instead of disproving contagion in plague, intend in no considerable degree to countenance that truth. The other direct proofs in favour of the same side of the question we cannot pursue further, on account of our narrowing limits. Here, therefore, we shall stop, referring such as wish to go more minutely into the subject to the writings of the benevolent Howard (which contain a vast body of evidence on this very point), and to the able and interesting pamphlet of Dr. Granville, the title of which is prefixed to our article. This gentleman traces in a very animated and satisfactory manner the importation of the principal plagues which have scourged modern Europe, particularly of those that appeared at Malta in 1813, at Corfu in 1816, and at Venice in October last.

Before finally quitting the subject we must, according to promise, examine the extraordinary assertion of Dr. Maclean 'that contagion was unknown to the ancients,' that the belief in such a power is only of 273 years' duration, and that it was first invented by the Pope and his physician Fracastorius, in 1546, for the purpose of frightening the fathers of the Council of Trent into a compliance with his desire of having their sittings transferred from that place to Bologna!! All this is very new to us, and very wonderful too, yet we are so obtuse as to remain unconvinced. We are gravely told that this is the fruit of his researches! Most assuredly our researches have led to a very different conclusion: for the satisfaction, therefore, of such as are skilful or curious in these matters, we shall throw the result of our investigations into the shape of a note. Let the reader compare and judge between us. (r)

Although we have said little expressly about the quarantine laws the whole scope of our discussion has obviously tended to prove that they are founded not only in sound policy but in paramount necessity. Indeed the benefits they have secured to the country are not conjectural or speculative, but matters of actual experience; for it is well known that, before such laws were enacted, or strictly enforced, Great Britain was frequently a grievous sufferer by plague. Once, at the least in every thirty or forty years did this dreadful visitant appear: a fact so uniformly observed that some physicians, and the great

(g) That small-pox, at least inoculated small-pox, is a preventive of plague, was suggested some years ago; and from it, probably, Valli took the hint of his experiment. But what is singularly unfortunate for this opinion, — the very country from whence we derived the practice of inoculation, viz. Turkey, has been for ages the hot-bed of plague, and continues so to this day.

(r) Thucydides, in his account of the plague of Athens expressly says that persons caught the disease from attending upon one another, and died like sheep, as he strongly expresses it. Vid. Thucyd. lib. ii.

The Sacred Writings plainly speak, not merely of personal contagion, but of its adhering to houses and apparel: See Lev. xiv. 37, et seq.; also xiii.

Plutarch, from a passage in his life of Romulus, was evidently acquainted with contagion, as was also Livy; See lib. vi. cap. 20. and lib. iv. cap. 26 30. Livy's words are, "Et primo temporis ac loci vitio, et ægri erant et moriebantur; postea curatio ipsa et contactus ægrorum vulgabat morbos." — And again; "vulgatque contactu in homines morbi." In Sallust we find this passage, "Post ubi contagio, quasi pestilentia, invasit." (Catalin. cap. 10;) and in Tacitus we find another almost equally strong; "Annum Dii tempestatibus et morbis invadere, ubi, in qua omne mortalium genus vis pestilentia depopulabatur, nulla cœli intemperie quæ occurreret oculis." (Annal. lib. xvi. cap. 13.)

In short it was familiarly known to the ancient poets as well as to their philosophers and historians. The reader may consult Lucretius de Natura Rerum, lib. vi. 1136. — as also Virgil, and lib. vii. of Ovid's Metamorph.

"Continuò culpam compescere, priusquam

Diva per incantum serpent contagia vulgus. — Virg.

"— Obscuræ auctoribus artes:

Quo propior quisque est, servitque fidelis ægro.

In partem læti cœnis venit. — Ovid,

See also Galen, lib. i. cap. 2. de Different. Febrium. It would be supererogatory labour to crowd our page with more quotations: these are sufficient to show that the notion of contagion was recognized by antiquity; the truth of that notion we have other means of proving, but that is a separate question.

Sydenham among the rest, attributed the periodical visitation not to laxity or insufficiency of the laws relating to commerce with infected places, but to a pestilential condition of the air, recurring at uncertain intervals from spontaneous or unknown causes. Let us contrast this with the state of the case in the present times, and with the exemption we have enjoyed from this dreadful calamity for no less than one hundred and fifty-four years! — The thing speaks for itself: and we need hardly and that benefits so substantial ought not to be tamely surrendered at the whim of a few incredulous and incurable theorists.

But even were the quarantine laws abrogated, as the non-contagionists propose, unless all the rest of Europe were to follow the example (a thing we have no right to expect) we should find the hindrance to commerce infinitely greater than at present, as our trade would be rendered suspected, and our ships be obliged to perform tedious quarantines in every port of the continent.

Although we thus strenuously contend that the substance of the present laws must be carefully preserved, we do not go the length, with some, that the inquiry now carrying on is either frivolous or useless. Several of our institutions are found, like every thing human, to be liable to practical imperfections to which the rectifying hand of the legislature may well be applied. A time of peace too, is the fittest season for beginning the work of amelioration. Why then should not the laws of quarantine, as well as any other part of our complicated system of commerce, be brought under examination? They are said to be very expensive: it will be for the legislature to consider whether the same safety cannot be procured at a less price than from seven shillings and six-pence to fifteen or sixteen shillings per ton upon every ship coming from within the Straits of Gibraltar. This is too heavy a tax on our Mediterranean trade; and it is mistaken policy to consider the heaviest restrictions as the most effectual: in fact extreme severity often defeats itself by augmenting the temptation to evasions, smuggling, and concealment. It would promote the interests of commerce, to make these laws as mild as possible; while at the same time the public safety would not be compromised by the change.

We are further of opinion, that the duration of quarantine might be lessened, unless in very extraordinary cases, and reduced from forty days to probably half the number. The most accurate researches up to this time have proved that the latest period of plague, i. e. the period that intervenes between the absorption of the poison by a healthy person and the development of the symptoms, never exceeds sixteen or, at the utmost, twenty days. Surely then a very short period of probation might be assigned; if not in all cases, at least in those where ships have clean bills of health — that is to say, when they have arrived from a port or place in which there was no rumour of plague at the time of their sailing. We admit that all laws proceed upon general views: yet we think it an absurdity, as well as a hardship, that vessels should be confined to the Mother-bank, or penned up in Stangate Creek, (s) to fulfil the letter of a law, after the spirit of that law is, to all intents and purposes of public good, completely satisfied.

That section of the Act relating to performance of quarantine on account of the yellow fever, should, we think, be totally expunged; for even admitting it to be contagious (which the majority of physicians deny) and importable into Britain, it never could spread, because an inter-tropical heat is absolutely necessary to its existence. It is simply the local disease of high atmospheric temperature. The clause in question, however, is seldom or never enforced.

But, upon the whole, we trust that the Legislature, though they may modify, (t) will not annul the laws in question. It becomes the guardians of our liberties to have also a watchful care over our lives:

(s) The Motherbank nigh the Isle of Wight, and Stangate Creek in the River Medway, are the stations allotted to ships under quarantine; and they seem to be sufficiently at a distance to insure the safety of the public, without having recourse to the Scilly Islands (the place pointed out by the statute for ships with plague actually on board) the navigation of which is always exceedingly dangerous.

(t) There is one point that we would wish respectfully to press upon the attention of the Committee: namely, whether contact is, in every instance, necessary to the communication of this disease. Almost all respectable observers concur in saying that either absolute contact is required, or such a near approach to the patient that the effluvia of his body may be inhaled by our lungs, or absorbed by the pores of our skin, — circumstances which, it is plain, are merely another form of contact. It is thought that the range of these pestilential emanations, like those of typhus fever and small-pox, does not exceed two or three feet: but Dr. Calvert, a respectable army physician, who witnessed the plague at Malta, believes that the virus streaming from infected persons or goods can be diffused in the ordinary air, and carried to an indefinite distance, still preserving its activity. The only analogies in favour of this opinion are the two following, and they are rather loose ones: a mortifying limb communicates to the whole ward of an hospital a stench altogether peculiar, and easily recognized at a good many paces' distance, nay even on entering the house, by a person possessing the *offensus cruditus*. Musk also, or civet, will diffuse its odorous particles to the furthest extremity of even the largest apartments. It is a circumstance rather curious that these exceedingly diffusible substances are almost all animal products.

and as the Jewish Lawgiver is said to have stayed the plague by interposing himself between the dead and the living (probably for the purpose of enforcing, by his presence and authority, a more complete separation), it is their duty to interpose the barrier of prudent restrictions between us and a disease, concerning which little is yet known, save its dreadfully contagious nature, and its unexampled mortality.

Nor is mere physical suffering all that is to be dreaded from the plague being imported into, and spreading in this country: the moral wreck that would ensue would be nearly as calamitous, and as much to be deplored. We do not now allude to the stagnation of commerce, and the destruction of industrious habits in the community at large, but rather to those darker—deeper traits of depravity which are almost invariably developed during seasons of public and irresistible danger. It is matter of history that calamities of this nature have an effect the very opposite of training the great body of mankind to resignation or to virtue. Thucydides informs us that the plague at Athens was the cause of more vice and enormity in that city than had ever been known before; and De Foe relates facts of a similar import, in his account of the plague of London in 1665. Some of the revolting scenes of that dreadful era—debauch going hand in hand with death—the shout of inebriety drowning the last sigh of dissolution—the parting pangs of many a deserted, wretched, mortal within, while all without in the streets was riot or rapine—are depicted, with fearful truth of colouring, in Wilson's "City of the Plague." (u) At such terrible conjunctures, there would seem too often to take place a general disruption of the principles that hold society together—an entire decomposition of the intellectual and social character of man: the closest sympathies are overcome—the strongest mental affinities annihilated: the ultimate elements of his moral nature exert an ungovernable and destructive reaction upon each other, till at last nothing is left but a disgusting scum of undisguised vice covering a frightful sediment of selfishness and ferocity.

(u) Sir. Wilson's poem may, thus far, be considered as DeFoe dramatized. For a further confirmation of the general principle here advanced regarding the shocking and almost incredible depravity produced by extremity of suffering, we may refer the reader to "a narrative" of the wreck of the French frigate Medusa on the coast of Africa, a short time ago.

Mr. Owen, the Philanthropist.

The same spirit of kindness, which produces so much visible good on Mr. Owen's establishment at New Lanark, enables him to make way in a remarkable manner among all classes of people. Members of Parliament, Merchants, Tradesmen, Speculators practical and theoretical, Journalists, Husbandmen, Lords, Princes, nay even Bishops and Archbishops, all lend him at least a willing ear, whatever their first impressions may be as to the feasibility of his plan. Some no doubt begin their listening as a mere task of their patience, others cannot suppress a little sarcastic smile, others attend out of mere curiosity, others out of graciousness, others out of astonishment, and others look with pitying wonder at a man considerably advanced beyond the season of youth, who nevertheless retains the enthusiasm of his former age amidst the experience and calculations of his present.

Some how or other, however, all these do listen; and at length many are not only willing to listen again and again, but to be speakers themselves, and, in fine, to co-operate. There is in truth a whole host of kindly feelings at the bottom of most natures, which only want the touch of an obvious kindred feeling to rouse them into action. Mr. Owen appeals to no self-love that can be offended. He is not that melancholy and anomalous thing, that thing to be lamented even when most honored, a soldier in the cause of humanity;—at least, if he receives wounds, he gives none. He comes upon us in the middle of all our strifes, and only takes occasion of the obstructions they throw in his way, to shew us the necessity of putting an end to them. He appeals then to no self-love that can be offended, but to all which can interest our better feelings in behalf of our fellow creatures. He threatens nothing, like the head of a sect; he disclaims not against argument, like a fanatic; he refuses no evidence, like a person interested in maintaining abuses; he request even no hasty belief, like a suspicious enthusiast. All is fair, open, practical, kind.

Now such a man would not be listened to, if every body could afford to carry on the old strife of passions and interests; but such a man is the very identical man to be listened to, at a time, when human beings have at once acquired heaps of knowledges and means, and are suffering under such inequalities of privation, as it is agreed on all hands cannot long be endured. That "something," as the phrase is, "must be done" before long, every body seems to allow. That nobody well knows what to do, especially the existing authorities, is also pretty well known to be the fact by all descriptions of people. It is moreover a third and more evident fact than all, that society cannot go on improving in it's mind and means, and actually altering it's modes of labour, and at the same time retain all it's old opinions, habits, and acquiescences. Habit and the old commonplaces about us may induce

most of us to think otherwise. The comfortable rich man, the journalist who has succeeded to fifty other journalists, the merchant and tradesman who have heard of London's being a flourishing city for so many centuries, may think so. But ask the labourer, whose intelligence has increased with his starvation, ask the reader acquainted with Bacon and his realized system of experiment, ask, above all, the manufacturer, who sees these gigantic steam-engines, like a new set of beings, silently taking the task of labour out of his hands, doing the work of thousands in an instant, and depriving him awhile of those profits which it would increase for him a thousand fold under an altered system. Whatever the precise words of the answer may be, or by whatever feeling produced, even by ignorant despair as well as wiser hope, it will amount to the same thing—"People suffer bitterly—innovation is forced upon them by the very progress of circumstances, something must be done, or there is ruin."

We find nothing advanced against the particulars of Mr. Owen's system, which has not been, in our opinion, already answered. The idea of the paupers going to live in *parallelograms* still haunts the imaginations of some, who nevertheless think Portman or Grosvenor-square a very pretty place, to say nothing of the quadrangles of Oxford. They must think, at any rate, that it would be much better for the poor to be housed under any configuration of village, then rot and starve as they do at present. We think it would be as well, however, if our practical philosopher would stick to his good old English word *square*, which carries its own justification with it, and not frighten the adult recollections of scholarship with terms from the mathematics. If we were to call a biscuit a twice-baked circle, it would seem to want double butter.

As to those who not having the fear of steam engines, safety-lamps, civilization itself, and other mighty improvements before their eyes, pronounce the system too good, and, as the phrase is, too romantic to be feasible, we reply for the present in the words of the great Father of Experimental Philosophy, many of whose romantic suggestions have since become common-places:—

"Francis Bacon," says he, in that summary of his opinions, which sets out like the voice of one standing in the eyes of posterity, "Francis Bacon thought in this manner. The knowledge whereof the world is now possessed, especially that of nature, extendeth not to magnitude and certainty of works. The physician pronounceth many diseases incurable, and faileth oft in the rest. The alchemists wax old and die in hopes. The magicians perform nothing that is permanent and profitable. The mechanics take small light from natural philosophy, and do but spin on their own little threads. Chance sometimes discovereth inventions, but that worketh not in years, but ages. So he saw well, that the inventions known are very imperfect, and that new are not like to be brought to light, but in great length of time, and that those which are, came not to light by philosophy.

"He thought also this state of knowledge was the worst, because men strive (against themselves) to save the credit of ignorance, and to satisfy themselves in this poverty. For the physician, besides the caution of practice, hath this general cautele of art, that he dischargeth the weakness of his art upon supposed impossibilities; neither can his art be condemned, when it self-judgeth. That philosophy also, out of which the knowledge of physic which now is in use is 'hewed,' receiveth certain positions and opinions (which if they be well weighed) induce this persuasion, that no great works are to be expected from art, and the hand of man; as in particular, that opinion, that the heat of the sun and fire differ in kind; and that other, that composition is the work of man, and mixture is the work of nature, and the like; all tending to the circumscription of man's power, and to artificial despair; killing in men, not only the comfort of imagination, but the industry of trial: only upon vain glory, to have their heart thought perfect, and that all is impossible, that is not already found."

Miscellanea.

Curious Circumstances.—There is now in the possession of ——— Hayes, a butcher, of Southampton, a pig, with a wooden leg, one of the side before, and it appears to walk with little lameness or inconvenience. This pig belonged to a disbanded soldier, who having seen many operations performed on his heroic comrades, on the glorious field of Waterloo, remembered enough of surgery to enable him to practise amputation with success on the poor animal, when an accident left no alternative between the loss of the limb or a premature death.

A very ancient implement of warfare was lately discovered in the crevice of a rock at Bangor Ferry, by one of the labourers employed in preparing the foundation for the Menai Bridge. It is a hard reddish stone, formed at one end like a wedge, and pointed at the other, intended for insertion at the end of a pole, and calculated to answer the purpose of a battle-axe. From the simplicity of the material, it is probable that it was used by some of the aboriginal inhabitants of Anglesea, as an instrument of warlike defence, at a period prior to the discovery of the use of metals.

Female Infanticide.

(From the XVIIth Number of the Friend of India, just published.)

In the first of a series of essays on the causes which are favorable to the happiness of our Indian fellow-subjects, or which tend to destroy the blessings given them, we had occasion lately to observe, that while India is enriched by the bounty of heaven with almost every blessing, the dreadful effects of ignorance and superstition are such, as either to annihilate the blessings so richly bestowed, or to destroy their very nature and render them a curse. These ideas, the facts contained in the following article, with which we have been favored by an unknown friend under the signature of Philanthropos, tend to verify in the strongest manner. Under the terms of Infanticide and Polyandry, they disclose such a scene of murder and abominable insect practised in a province which now forms a part of the Bengal Presidency, as is sufficient to fill the mind with horror. Yet this is neither the effect of a long course of warfare, nor of a state of anarchy and confusion into which that part of the country may have been thrown; but the mere effect of customs encouraged under the view of their brahmanic teachers, and even with their express sanction. Happy for that country, as well as others which Divine Providence has now placed under British influence, should this important change prove the means of conveying to them those just ideas of their relation to their Creator and to each other, and of the duties resulting from these relations, which form the basis of the happiness of Britain.

To the Editor of the Friend of India.

SIR,

Desirous of bringing to public notice a subject of great though painful interest, and considering the plan and object of your work as most agreeable to the nature of my communication, I am induced to offer you the following for insertion in one of your earliest Numbers. It is to be hoped, (and indeed it is with something of this view that I address you), that it may attract the notice of those who have the power as well as the inclination to apply some remedy to so dreadful an evil.

The subject to which I allude, is Female Infanticide; an atrocity, which though known to exist, (or perhaps I should say to have existed,) in several parts of Hindoosthan; yet has not, I believe, been hitherto suspected to extend to the mountainous provinces, situated to the North-East, the scene of our late contest with the Nepal Government. As some voucher for the truth of the statement I am about to offer you, I give the names of the gentlemen* whose enquiries have established the fact; and you are at liberty to publish them, or not, as you may think proper.

The discovery of the existence in these countries of so extraordinary a custom as Polyandry, hitherto supposed peculiar to Tibet, excited much curiosity amongst those whose occupation or other causes led them to make such enquiries. By many it was supposed that this custom was confined to certain districts;† but later and more correct enquiries have furnished cause for believing the custom to be general throughout the whole of the countries in question. In considering so singular a fact, it seemed difficult to understand what became of the surplus females. Statistical Tables lead us to believe that the proportion of male to female births is rather in favor of the latter: it was therefore but natural to enquire how those females who were unprovided for, were disposed of. In Tibet the monasteries which are known to exist in great numbers, afforded a ready solution of the difficulty. As however no institutions of this kind were to be found in these provinces, it became a matter of some curiosity to ascertain what grounds there were for an accusation sometimes preferred against these people of destroying their female children. Under this view of the subject, two European officers who happened to make a short tour through these countries, made some enquiries; and the result of them may be conveniently stated in the few following facts taken from their note books:

1. In the village Gealut in Joobul, the number of inhabitants was ascertained to be sixty-one males and thirty-three females, shewing a deficiency in the latter of twenty-eight in sixty-one, or about forty-five in the hundred. The Seyana,‡ by name Poones, being asked the cause of this deficiency, hesitated not to state, that all the daughters after the second were destroyed. He also bore witness to the existence of the custom of Polyandry, of which he mentioned an instance in six brothers, (he being one), having two women amongst them. He afterwards on noticing the earnestness with which the enquiries were conducted, began to prevaricate, and latterly denied almost the whole of what he had previously stated; which induced the gentlemen in question to resort to another quarter for information. Two men of the cast called Kungus who were brothers, were examined, every precaution was

taken to avoid misunderstanding them, by employing an intelligent brahman from the eastward as interpreter, and endeavours were used to allay their suspicions as much as possible by the manner in which the questions were put. They were first asked, if a custom existed of several brothers living with the same woman; and if such existed, to mention an instance. They replied in the affirmative, and stated that two examples of it existed in the village. In each, three brothers lived with one female: in the one case two sons and one daughter were the fruit of this connection, in the other, there were no children. They were next asked, how many daughters it was customary to bring up? to which they replied, Two. To the question, what became of the others? they replied, that they were buried alive. Did they know of any instance in their own village of this fact? No; but the elder inhabitants doubtless did. Did they consider it as a crime? Why should they? it was the custom of the country.

2. In the small hamlet of Jurahun, dependant on the preceding village, the number of males was found to be nineteen, and of females nine, leaving a deficiency of ten in nineteen, or fifty-five in a hundred. Here the opportunity was more favorable for enquiry. Incessant and heavy rain during two days induced our travellers to take up their quarters in the principal house in the village, it being far superior in comfort and accommodation to any tent, at least in such weather. By this means a certain degree of intimacy was established with the inmates. Of these the favorite was a young girl called Nuntoo, about sixteen years of age, whose portrait it was proposed to sketch, as offering a fair specimen of a mountain beauty. To the proposal no objection was made, and an opportunity was taken while apparently occupied in this task, of questioning her relatives, (who sat in the room,) through a native, on the subject which continued to occupy so much of their thoughts. The fact was again confessed, that all beyond the second daughter are destroyed. They were buried alive, and what was considered certainly as the most incredible part of the statement, by the mother herself. Wishing to put the question in a still more direct manner, they enquired if the young girl before them would act in this manner, should she have more than two daughters. Why not? was the answer; and the girl herself betrayed no more emotion than as though the question had been of the most trifling description. It was however thought, that some remarks on the apparent impossibility of the mother's being concerned in such an act, did affect her; and they were repeated and commented on throughout the circle.

3. The next testimony is that of Kear-singha, the son of Prema-singha, one of the Wuzera* of Joobul. He states that there is no doubt of the existence of the custom; and that it is general amongst the poorer sort of Ryots or farmers, who plead their inability to bring up many children. While he acknowledged himself that the practice constitutes a crime of no common magnitude, he allowed that it occurred but too often, although there were instances wherein advice and remonstrance had been interposed, and had been attended with good effect. He also expressed a belief, that many lulled their consciences to rest, by pleading the universality of the custom.

4. Prithum, Seyana of Mathed, a large village in Poondur, corroborated the preceding information. He also allowed it to be a crime but pleaded the ignorance of those who generally practised it, as some extenuation. He also avowed a persuasion, that were any one to remonstrate with them, it might be prevented; and confessed the ignorance of the brahmans, who, he said, instead of instructing others in the heinousness of the act, practiced the thing themselves. This village was too large to admit of having the numbers of each sex correctly ascertained; but two people were pointed out who had been guilty of the crime, the one a woman named Konr, aged eighty, who had two daughters and destroyed them both; the other a man named Sahboo, aged forty-one, who had also destroyed two daughters which he had born to him.

5. The small village of Shirtee was found to contain twenty-eight males, and twenty females. The Seyana, Seena-Rama, acknowledged the practice of female infanticide to prevail, not only in his own village, but all over the country (Joobul). He was asked, how many were generally brought up; he said it depended on the circumstances of the parents. He stated that they were buried the moment after birth, and, (contrary to what had been collected at Jurahun), by the father. That if the daughters were not destroyed at that period, their lives were preserved; but in case of famine or other misery they were sold. On being questioned as to the children he himself had, he answered, that he had one son, and made no scruple to confess, that should he have too many daughters, he must make away with some of them.

6. Prema-singha, the father of Kear-singha, before mentioned, corroborated all the preceding facts, and mentioned a circumstance of this kind which had occurred near his village, or rather was about to occur; for he at length succeeded, though with much difficulty, in persuading the wretched mother to preserve the infant, under the promise, that

* Lieutenants Herbert, and Gerard, 8th Regt. Native Infantry.

† Those of Joobul, Bissahir, and Sirmoor.

‡ Headman or Zameendar. § Or Khussen, a mixt cast, the offspring of the Rajpoot and the aboriginal female.

* The mountaineers apply this high-sounding title, to those who are employed by the Rana to collect the revenue, as well as to conduct his other affairs.

he would provide for it after it had been weaned. It was only in consequence of being supported by the father, who had some compunctious visitings, that he prevailed; the neighbours of the unfortunate pair exerting all their influence to accomplish the destruction of the infant.* Prema-singha also mentioned, that he had adopted two of his brother's daughters whom he had been advised to destroy; and indeed, this fact had been learned from others, who seemed to think it very extraordinary.

7. The Rana of Joobul, *Poornechund*, in addition to the testimony he gave of the existence of the practice, casually mentioned what may appear a curious circumstance. It will shew how easy the people may be weaned from so horrible a custom. He said, that formerly it was also prevalent in the small district of Kotgooroo; but that on occasion of a marriage taking place between the Rana of the latter place, and a daughter of the Joobul Rana's, the latter, from paternal feeling in the case of his own daughter, stipulated that the practice should be put a stop to; which stipulation was fulfilled. This appears the more extraordinary, as there seems to have been no attempt made on the part of the Joobul Ranas, to abolish it in their own country.

8. There were other villages in which sufficient opportunity did not offer for making equally particular enquiries; all that was done being to ascertain the proportion of males to females. These results however, afford nearly demonstrative proof of the general operation of the barbarous custom. They are here arranged in the form of an abstract, in which the villages already mentioned are also included.

Proportion of Males and Females in some of the villages in the mountainous district of Joobul.

Names of Villages.	Males	Females	
Toonul,	5	4	
Bugahir,	10	3	
Putan,	14	13	
Chirog,	3	2	
Myuen,	7	6	
Gealut,	55	33	Result Proportion
Ktanan,	11	5	of Females to
Doobhash,	7	4	100 Males, 60—7
Jabnoo,	14	7	Proportion of
Moorghalce,	4	1	Males to 100 Fem-
Jurahn,	19	9	males, 164—8
Koomroo,	7	2	
Kootce,	17	13	
Shirtee,	28	20	
Total	201	122	

Having thus related the facts, as they have been mentioned to me, I shall leave your readers to draw their own conclusions, observing merely, that it requires but a word from us to put a stop to so dreadful a crime, and that no religious prejudices whatever interfere with our duty in this instance.

I am, Sir, Your very obedient servant,

Sept. 19, 1819.

PHILANTHROPOS.

* This circumstance took place not quite a month ago.

Poetry.

FLORA.—A BALLAD.

'Twas merry June—reclining laid,
In yonder grove's luxuriant shade,
Fast, fast asleep is Flora fair,
Her tresses waving in the air,
A rich suffusion o'er her face,
Gave added charms to every grace,
One snowy arm beneath her head,
Half hid one cheek of blushing red,
Her ruby lips, half parted seem.
As smiling in some blissful dream.
She dreamt of Edward's safe return,
She dreamt he bade her cease to mourn,
She dreamt he held her to his breast,
And lulled her softly there to rest,
But soft!—she wakes—who is 't she sees,
With plumage nodding in the breeze,
With plaid across his manly breast,
In Highland costume fitly dressed,
He ruins—he clasps her to his side,
And calls her his soft blushing bride.
"My Edward dear,"—the maid exclaim'd,
"But now I of thee fondly dream'd
"I thought you held me to your breast,
"And hushed me in your arms to rest."

ROS ROY.

THE THISTLE.

The Bourbon Lily's sweet to smell
Tho' trodden down by bank and vale,
And blushing rich, 'mongst honey dews
Hangs down the lovely English Rose.

In Scotland grows a hardy flower
Too rough to bad in Lady's bower,
Though eased among the Northern snows
The Thistle grows above the Rose.
Knee deep in Egypt's burning sand
Was seen old Scotland's veteran band,
In deadly wrestle, hand to hand,
Shake ruin from the gory brand,
Red smeared with blood and grim with dust,
Through France's fiercest ranks they rushed,
And resting at the Battle's close
Raised the rough Thistle o'er the Ross.

When on Corunna's deadly shore
The Highland claymore dropped with gore,
Thick in the battle's awful hour,
In Bayonet's push, and Bullet's shower,
The Gallic Eagle low did cower
Crushed 'neath the gory tread of Moore,
Then richly stained with blood of Foes,
The Thistle flaunted o'er the Rose.

When on Culloden's dreary field
Scotland threw down her rebel shield;
When war's grim horrors all unchained,
Like clouds new loosed in Heaven, rained;
E'en then, sweet flower! 'neath war-men's tread
Thou held'st thy never-bended head,
And bloody-wreathed round valor's brows
Thou flaunted 'at o'er the English Rose.

Let England's lovely Roses speak,
Dropped on mild beauty's smiling cheek,
But ill suits beauty's buxom train
The iron grips of battle grim.
Sweet Thistle! tuft of golden down,
Thou princeliest gem in Britain's crown,
Red wet with dearest blood of Foes
Thou blossom'st far above the Rose.

THE ROSE.

Awake, awake, my sleeping Lyre!
And equal to thy master's fire,
No longer soothe the love sick-swain,
But raise thy notes in stern disdain:
See Scotland's towering Thistle grows
And lords it o'er the English Rose.
Vain hope!—that Rose-immortal flowers,
And in Britannia's bosom towers.
Sweet Rose! Thy charms in Britain's fair
Unrivalled bloom beyond compare,
In battle 'tis thy triumph glows—
What tints can match thee, blood-stained Rose!

On Acre's plains, on Sydney's brow
Thy lustre made the tyrant bow.
When Nelson's thunders loud proclaimed
On Nilus' banks for victory famed—
Hark! where on Trafalgar's shores,
Again the British thunder roars.
So, Talavera! on thy plains
The blood-stained Rose the laurel gains.
But see, e'en now in War's red tide
The ensanguined torrent rolling wide.
See Gallia's lilies blanched with fear,
Trembling avoid the British spear,
Its warrior-head the Thistle rears
And towering grows mid gloomy spears,
Unyielding seeks the battle's roar
And deeply bathes in hostile gore;
The Shamrock too in honor glows,
Close by its side the sister Rose.

Oh! ever thus in union great
May each support the parent state,
Let Gallia's Eagles proudly soar
And rashly tempt the British shore;
Serenely great, amid the storm
Britannia treats the threat with scorn:
See on her shield, in union sweet,
The Thistle, Rose and Shamrock meet,
But Britain's Rose, her blood-stained Rose,
No rival fears, no rival knows.